

Underpass under the A16 motorway

Studies and works follow-up

2016



FRANCE - Nord -

Calais

Client

RTE

Owner

RTE

Highlights

Directional drilling

Microtunnelling

Auger driving (single-flight or guided)

Driving



The Project

TERRASOL has been contracted by RTE (French transmission system operator) for various stages of studies and works follow-up concerning two underpasses under the A16 motorway near Calais.

Each passage is intended to accommodate 4 to 6 high-voltage cables and 2 to 4 series of telecom cables running under the motorway.

Key features

- Feasibility study for the various working methods
- Risk analysis
- Estimateion of the settlements induced by the works under the motorway
- Definition of the equipment and site facilities, along with a financial estimate and a schedule for each method
- Support during tendering phase, contract award, and works follow-up

Our Services

The technical, operational and financial feasibility of various trenchless working methods has been examined: directional drilling, microtunnelling, auger driving (single-flight or guided) and driving. For the two sites under study, appropriate additional geotechnical investigations were necessary in order to refine the choice of methods and reduce the uncertainties. The geotechnical conditions were of primary importance in the selection of the most relevant execution method.

Risk analyses were performed and used to estimate the residual risks associated with each solution and to enable reliable comparison between them.

We then defined the technical characteristics of the selected methods and used finite element calculations (Plaxis) to estimate the settlements induced by the works under the motorway. The equipment and site facilities were also considered, along with a financial estimate and a schedule for each method. Lastly, TERRASOL is supporting RTE for the next phases: "DCE" (tendering document package), contract award, and works follow-up.